```
⊞
                                                                     Q
                                 lemp@u20-07: ~
lemp@u20-07:~$ sudo talnet -d localhost 22
[sudo] password for lemp:
sudo: talnet: command not found
lemp@u20-07:~$ sido talnet -d localhost 22
Command 'sido' not found, did you mean:
  command 'sudo' from deb sudo (1.8.31-lubuntu1.2)
  command 'sudo' from deb sudo-ldap (1.8.31-lubuntu1.2)
Try: sudo apt install <deb name>
lemp@u20-07:~$ ^C
lemp@u20-07:~$ sudo talnet opennet.ru 80
sudo: talnet: command not found
lemp@u20-07:~$ sudo telnet opennet.ru 80
Trying 217.65.3.21...
Connected to opennet.ru.
Escape character is '^]'.
^CConnection closed by foreign host.
lemp@u20-07:~$ sudo telnet india.colorado.edu 13
Trying 128.138.140.44...
Connected to india.colorado.edu.
Escape character is '^]'.
59835 22-09-13 07:56:40 50 0 0 757.9 UTC(NIST) *
Connection closed by foreign host.
lemp@u20-07:~$ sudo telnet -d localhost 22
Trying 127.0.0.1...
telnet: Unable to connect to remote host: Connection refused
lemp@u20-07:~$
```



```
∄
                                 lemp@u20-07: ~
lemp@u20-07:~$ sudo telnet mgpu.ru 80
[sudo] password for lemp:
Trying 37.230.157.233...
Connected to mgpu.ru.
Escape character is '^]'.
^CConnection closed by foreign host.
lemp@u20-07:~$ sudo curl -v http://mgpu.ru
   Trying 37.230.157.233:80...
* TCP_NODELAY set
* Connected to mgpu.ru (37.230.157.233) port 80 (#0)
> GET / HTTP/1.1
> Host: mgpu.ru
> User-Agent: curl/7.68.0
> Accept: */*
* Mark bundle as not supporting multiuse
< HTTP/1.1 301 Moved Permanently
< Content-length: 0
< Location: https://mgpu.ru/
* Connection #0 to host mgpu.ru left intact
lemp@u20-07:~$
```

Q

```
lemp@u20-07:~$ sudo curl -v https://mgpu.ru/
   Trying 37.230.157.233:443...
* TCP NODELAY set
* Connected to mgpu.ru (37.230.157.233) port 443 (#0)
* ALPN, offering h2
* ALPN, offering http/1.1
* successfully set certificate verify locations:
  CAfile: /etc/ssl/certs/ca-certificates.crt
  CApath: /etc/ssl/certs
* TLSv1.3 (OUT), TLS handshake, Client hello (1):
* TLSv1.3 (IN), TLS handshake, Server hello (2):
* TLSv1.3 (IN), TLS handshake, Encrypted Extensions (8):
* TLSv1.3 (IN), TLS handshake, Certificate (11):
* TLSv1.3 (IN), TLS handshake, CERT verify (15):
* TLSv1.3 (IN), TLS handshake, Finished (20):
* TLSv1.3 (OUT), TLS change cipher, Change cipher spec (1):
* TLSv1.3 (OUT), TLS handshake, Finished (20):
* SSL connection using TLSv1.3 / TLS AES 256 GCM SHA384
* ALPN, server did not agree to a protocol
* Server certificate:
  subject: CN=*.mgpu.ru
* start date: Mar 29 11:44:41 2022 GMT
* expire date: Apr 30 11:44:40 2023 GMT
* subjectAltName: host "mgpu.ru" matched cert's "mgpu.ru"
* issuer: C=BE; O=GlobalSign nv-sa; CN=AlphaSSL CA - SHA256 - G2
* SSL certificate verify ok.
> GET / HTTP/1.1
> Host: mgpu.ru
> User-Agent: curl/7.68.0
> Accept: */*
* TLSv1.3 (IN), TLS handshake, Newsession Ticket (4):
* TLSv1.3 (IN), TLS handshake, Newsession Ticket (4):
* old SSL session ID is stale, removing
* Mark bundle as not supporting multiuse
< HTTP/1.1 301 Moved Permanently
< Content-length: 0
< Location: https://www.mgpu.ru/
* Connection #0 to host mgpu.ru left intact
```

**!** lemp@u20-07: ~

```
lemp@u20-07:~$ sudo curl -v https://www.mgpu.ru/
    Trying 37.230.157.233:443...
* TCP NODELAY set
* Connected to www.mgpu.ru (37.230.157.233) port 443 (#0)
* ALPN, offering h2
* ALPN, offering http/1.1
* successfully set certificate verify locations:
    CAfile: /etc/ssl/certs/ca-certificates.crt
  CApath: /etc/ssl/certs
* TLSv1.3 (OUT), TLS handshake, Client hello (1):
* TLSv1.3 (IN), TLS handshake, Server hello (2):
* TLSv1.3 (IN), TLS handshake, Encrypted Extensions (8):
* TLSv1.3 (IN), TLS handshake, Certificate (11):

* TLSv1.3 (IN), TLS handshake, CERT verify (15):
* TLSv1.3 (IN), TLS handshake, Finished (20):
* TLSv1.3 (OUT), TLS change cipher, Change cipher spec (1): 
* TLSv1.3 (OUT), TLS handshake, Finished (20):
* SSL connection using TLSv1.3 / TLS_AES_256_GCM_SHA384
* ALPN, server did not agree to a protocol
* Server certificate:
* subject: CN=*.mgpu.ru
   start date: Mar 29 11:44:41 2022 GMT
* expire date: Apr 30 11:44:40 2023 GMT
* subjectAltName: host "www.mgpu.ru" matched cert's "*.mgpu.ru"
* issuer: C=BE; O=GlobalSign nv-sa; CN=AlphaSSL CA - SHA256 - G2
* SSL certificate verify ok.
> GET / HTTP/1.1
> Host: www.mgpu.ru
> User-Agent: curl/7.68.0
> Accept: */*
* TLSv1.3 (IN), TLS handshake, Newsession Ticket (4):

* TLSv1.3 (IN), TLS handshake, Newsession Ticket (4):
* old SSL session ID is stale, removing
* Mark bundle as not supporting multiuse
< HTTP/1.1 200 0K
< Server: nginx/1.18.0 (Ubuntu)
< Date: Tue, 13 Sep 2022 08:09:31 GMT
< Content-Type: text/html; charset=UTF-8
< Transfer-Encoding: chunked
< Vary: Accept-Encoding
< Last-Modified: Tue, 13 Sep 2022 08:08:55 GMT
< Cache-Control: max-age=564, must-revalidate
< Vary: Cookie
< Link: <https://www.mgpu.ru/wp-json/>; rel="https://api.w.org/"
< Link: <https://www.mgpu.ru/wp-json/wp/v2/pages/2>; rel="alternate"; type="application/json"
< Link: <https://www.mgpu.ru/>; rel=shortlink
<IDOCTYPE html>
```

```
lemp@u20-07:~$ sudo curl -v https://www.hse.ru
   Trying 178.248.234.104:443...
 TCP NODELAY set
 Connected to www.hse.ru (178.248.234.104) port 443 (#0)
 ALPN, offering h2
 ALPN, offering http/1.1
 successfully set certificate verify locations:
   CAfile: /etc/ssl/certs/ca-certificates.crt
 CApath: /etc/ssl/certs
 TLSv1.3 (OUT), TLS handshake, Client hello (1):
 TLSv1.3 (IN), TLS handshake, Server hello (2):
 TLSv1.3 (IN), TLS handshake, Encrypted Extensions (8):
 TLSv1.3 (IN), TLS handshake, Certificate (11):
 TLSv1.3 (IN), TLS handshake, CERT verify (15):
 TLSv1.3 (IN), TLS handshake, Finished (20):
 TLSv1.3 (OUT), TLS change cipher, Change cipher spec (1):
 TLSv1.3 (OUT), TLS handshake, Finished (20):
SSL connection using TLSv1.3 / TLS_AES_128_GCM_SHA256
 ALPN, server accepted to use h2
 Server certificate:
  subject: CN=*.hse.ru
  start date: Jan 21 00:00:00 2022 GMT
  expire date: Feb 21 23:59:59 2023 GMT
  .
subjectAltName: host "www.hse.ru" matched cert's "*.hse.ru"
  issuer: C=GB; ST=Greater Manchester; L=Salford; O=Sectigo Limited; CN=Sectigo RSA Domain Validation Secure
  SSL certificate verify ok.
 Using HTTP2, server supports multi-use
 Connection state changed (HTTP/2 confirmed)
 Copying HTTP/2 data in stream buffer to connection buffer after upgrade: len=0
 Using Stream ID: 1 (easy handle 0x5654db6eb2f0)
 GET / HTTP/2
 Host: www.hse.ru
 user-agent: curl/7.68.0
 accept: */*
* TLSv1.3 (IN), TLS handshake, Newsession Ticket (4):
 TLSv1.3 (IN), TLS handshake, Newsession Ticket (4):
 old SSL session ID is stale, removing
 Connection state changed (MAX_CONCURRENT_STREAMS == 16)!
< HTTP/2 302
 server: QRATOR
< date: Tue, 13 Sep 2022 08:14:10 GMT
< content-type: text/html
< content-length: 138
< location: https://www.hse.ru/en/
< expires: Tue, 13 Sep 2022 08:14:10 GMT</pre>
< cache-control: max-age=0
< strict-transport-security: max-age=15552000
< x-xss-protection: 1; mode=block; report=https://www.hse.ru/n/api/xss/report</pre>
< set-cookie: tracking=ZEsUBGMg09JL38EyCVfCAg==; expires=Thu, 31-Dec-37 23:55:55 GMT; domain=.hse.ru; path=/</pre>
```

```
lemp@u20-07:~$ sudo curl -v https://www.hse.ru/en/
    Trying 178.248.234.104:443...
* TCP NODELAY set
* Connected to www.hse.ru (178.248.234.104) port 443 (#0)
* ALPN, offering h2
* ALPN, offering http/1.1
* successfully set certificate verify locations:
    CAfile: /etc/ssl/certs/ca-certificates.crt
CApath: /etc/ssl/certs/

* TLSv1.3 (OUT), TLS handshake, Client hello (1):

* TLSv1.3 (IN), TLS handshake, Server hello (2):

* TLSv1.3 (IN), TLS handshake, Encrypted Extensions (8):
* TLSv1.3 (IN), TLS handshake, Certificate (11):
* TLSv1.3 (IN), TLS handshake, CERT verify (15):
* TLSv1.3 (IN), TLS handshake, Finished (20):
* TLSv1.3 (OUT), TLS change cipher, Change cipher spec (1):
* TLSv1.3 (OUT), TLS handshake, Finished (20):
* SSL connection using TLSv1.3 / TLS_AES_128_GCM_SHA256
* ALPN, server accepted to use h2
* Server certificate:

* subject: CN=*.hse.ru
   start date: Jan 21 00:00:00 2022 GMT
   expire date: Feb 21 23:59:59 2023 GMT subjectAltName: host "www.hse.ru" matched cert's "*.hse.ru" issuer: C=GB; ST=Greater Manchester; L=Salford; O=Sectigo Limited; CN=Sectigo RSA Domain Validation Secure Server CA
   SSL certificate verify ok.
* Using HTTP2, server supports multi-use
* Connection state changed (HTTP/2 confirmed)
* Copying HTTP/2 data in stream buffer to connection buffer after upgrade: len=0
* Using Stream ID: 1 (easy handle 0x5617171c72f0)
> GET /en/ HTTP/2
> Host: www.hse.ru
> user-agent: curl/7.68.0
> accept: */*
* TLSv1.3 (IN), TLS handshake, Newsession Ticket (4):
* TLSv1.3 (IN), TLS handshake, Newsession Ticket (4):
* old SSL session ID is stale, removing
* Connection state changed (MAX_CONCURRENT_STREAMS == 16)!
< HTTP/2 200
< server: QRATOR
< date: Tue, 13 Sep 2022 08:15:35 GMT
< content-type: text/html; charset=utf-8
< content-length: 100547
< etag: W/"188c3-TTRGgiSJ8Xq6BiuGAC4y1eeBTdc"</pre>
< x-ireland-cache-status: HIT
ily is --meth for more information.
lemp@u20-07:~$ ls -l /etc/nginx/sites-enabled/
lrwxrwxrwx 1 root root 34 сен 13 11:28 default -> /etc/nginx/sites-available/default
lemp@u20-07:~$ ls -l /etc/nginx/sites-available/
-rw-r--r-- 1 root root 2416 map 26_ 2020 default
                        1 1000 1000 E120 Map E0
 lemp@u20-07:~$ sudo rm /etc/nginx/sites-enabled/default
lemp@u20-07:~$
lemp@u20-07:~$ sudo mkdir -p /var/www/simple static
 lemp@u20-07:~$ sudo chown lemp /var/www/simple_static
 lemp@u20-07:~$ cd /var/www/simple static
 lemp@u20-07:/var/www/simple_static$ curl https://www.google.com/image/branding/googlelogo/2x/googlelogo color 272x9
 2dp.png > google.png
   % Total
                % Received % Xferd Average Speed
                                                            Time
                                                                       Time
                                                                                 Time Current
                                         Dload Upload Total Spent
                                                      oad Total Spent Left Speed
0--:--:-- 23808
 100 1619 100 1619 0
                                     0 23808
 lemp@u20-07:/var/www/simple_static$
```

```
.<mark>emp@u20-07:/var/www/simple_static</mark>$ curl https://www.google.com/image/branding/googlelogo/2x/googlelogo_color_272x
!dp.png > google.png
                       % Received % Xferd Average Speed
  % Total
                                                                                            Time
                                                                                                            Time
                                                                                                                             Time Current
                                                              Dload Upload Total Spent
                                                                                                                            Left Speed
100 1619 100 1619
                                         Θ
                                                      0 23808
                                                                                  0 --:--:- 23808
.emp@u20-07:/var/www/simple_static$ printf"<body>This is our first html file</body>\n" > index.html
)ash: printf<body>This is our first html file</body>\n: No such file or directory
.emp@u20-07:/var/www/simple_static$ ls
joogle.png index.html
.emp@u20-07:/var/www/simple_static$
lemp@u20-07:/etc/nginx$ sudo service nginx start
lemp@u20-07:/etc/nginx$ curl -v http://localhost:80
           Trying 127.0.0.1:80...
* TCP NODELAY set
* Connected to localhost (127.0.0.1) port 80 (#0)
> GET / HTTP/1.1
> Host: localhost
> User-Agent: curl/7.68.0
> Accept: */*
* Mark bundle as not supporting multiuse
< HTTP/1.1 200 OK
< Server: nginx/1.18.0 (Ubuntu)
< Date: Wed, 14 Sep 2022 06:30:03 GMT
< Content-Type: text/html
< Content-Length: 41
< Last-Modified: Wed, 14 Sep 2022 06:27:29 GMT
< Connection: keep-alive
< ETag: "63217451-29"
< Accept-Ranges: bytes
<body>This is our first html file</body>
* Connection #0 to host localhost left intact
           О Distributed_systems/С x | ⊗ Семинар 1 по HTTP.pc x | ⊗ localhost x +
                                                                                                                                remp@u20-07:-5 sudo rm /etc/nginx/sites-enabled/simple_static.conf
emp@u20-07:-5 sudo mkdir p /var/www/simple_static
emp@u20-07:-5 sudo chown lemp /var/www/simple_static
emp@u20-07:-5 sudo chown lemp var/www/simple_static
emp@u20-07:-5 sudo chown lemp var/www/simple_static
emp@u20-07:-5 cd /var/www/simple_static
emp@u20-07:-7 cd /var/www/simple_emp@u20-07:-7 cd /var/www/simple_emp@u20-07:-7 cd /var/www/
  ← → C ① localhost
                                                                                                < ☆ □ ② Update :
        🗘 Distributed systems/С х | 🚱 Семинар I
                            C

 localhost

    This is our first html file
```